

ABSTRACT OF THE DISCLOSURE

A monolithic ink-jet printhead includes a substrate which has an ink chamber to be supplied with ink, a manifold for supplying ink to the ink chamber, and an ink channel for providing communication between the ink chamber and the manifold, a nozzle plate including a plurality of passivation layers sequentially stacked on the substrate, a metal layer formed on the passivation layers, and a nozzle, through which ink is ejected from the ink chamber, that penetrates the nozzle plate, a heater provided between adjacent passivation layers, the heater being located above the ink chamber for heating ink within the ink chamber, a conductor provided between adjacent passivation layers, the conductor being electrically connected to the heater for applying a current to the heater, and a hydrophobic coating layer formed exclusively on an outer surface of the metal layer.